

Claims

1. A monoclonal antibody that can bind to the IL12R β 2 chain expressed on the cell surface of human T lymphocytes, where said binding prevents IL12R β 2 chain-mediated STAT4 phosphorylation.
2. A monoclonal antibody that can bind to the IL12R β 2 chain expressed on the cell surface of human T lymphocytes, where said binding prevents the IL12R β 2 chain from dimerization to the IL12R β 1 chain.
3. A monoclonal antibody that can bind to the IL12R β 2 chain expressed on the cell surface of human T lymphocytes, where said binding prevents IL12R β 2 chain-mediated STAT4 phosphorylation and prevents the IL12R β 2 chain from dimerization to the IL12R β 1 chain.
4. A combination of a monoclonal antibody of any one of claims 1-3 or part thereof, and an autoantigen, peptide fragments of an autoantigen or a modified form thereof. *Claim 1*
5. A combination according to claim 4, wherein said autoantigen is selected from myelin basic protein, collagen type II, human cartilage glycoprotein 39, heat shock proteins, insulin, glutamate decarboxylase and α -fodrin.
6. A combination of a monoclonal antibody of any one of claims 1 or part thereof and a second monoclonal antibody.
7. A combination according to claim 6, wherein said second monoclonal antibody is selected from antibodies to co-stimulatory receptors on T cells or antigen presenting cells, especially CD40, CD40L, CD80 and CD86.
8. A pharmaceutical composition comprising the antibody of any one of claims 1-3 or the combination of any one of claims 4-7. *Claim for the combination of claim 4*

9. A pharmaceutical composition according to claim 8, comprising a heat shock protein or peptide fragments of said heat shock protein for the stimulation of type 2 cytokine producing regulatory T cells.

10. A method for treating autoimmune diseases, the method comprising administering to a patient in need of such treatment a therapeutically effective amount of a pharmaceutical composition of Claim 8 or 9.

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add
C₂

add
E₁

add
C₃

add B'